Original Articles

SYPHILIS OF THE THYROID GLAND REPORT OF A CASE.*

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Syphilis of the thyroid is one of the rarest diseases that affects this organ, but the fact that it does occur and may so easily be mistaken for carcinoma which occurs in about one per cent. of goiters, justifies my calling your attention to this subject.

In reviewing the literature on syphilis of the thyroid gland I find some authors do not mention it at all, others state it is very rare. Adami in 1911 mentioned that eleven undoubted cases are found in the literature. Twenty-three apparently authentic cases of tertiary syphilis of the thyroid gland have been reported to date: five by Mendel, three by Abraham, three by Demme, one each by Köhler, Pospelow, Thursfield, Clarke, Barth, Gombault, Fraenkel, Davis, Poncet and Lerche, Clarke, Thompson, and a case in the Museum of the Royal College of Surgeons. Of these, only four cases, two of Mendel's, Clarke's and Poncet and Lerche's case, were diagnosed both clinically and histologically. American literature has produced only three cases, Davis's case proven histologically at post mortem, Clarke's and Thompson's case proven only clinically.

I wish to report a case of gumma of the thyroid gland proven clinically and histologically with the patient still living and well two years after operation.

Mrs. E. L. B., white, American birth, age 48 years, was referred to me by Dr. F. C. E. Mattison and examined March 29, 1916. Family history—Negative. Past history—Married at 19 years. Divorced seventeen years ago. Myomectomy seventeen years ago. Hysterectomy for fibroids three years ago. Goiter for seventeen years which disappeared with the onset of the present complaint.

Present complaint—Difficulty in breathing of three months' duration, becoming rapidly worse. Past three weeks must sit up in bed to sleep. Marked pressure sensation in throat during last six weeks. Hoarseness with brassy cough for seven months. Lost ten pounds in weight during past month.

Examination—Patient fairly well nourished, weighing about one hundred and twenty-six pounds. Skin of face pigmented, a muddy color, as seen in adenomatous goiter with intoxication. No evidence of myxedema.

General outline of neck normal except that on the right side in the region of the superior pole of the thyroid gland is a soft tumor mass with an indefinite outline about two centimeters in diameter. It is not tender or painful. There is no discoloration of the skin and it is not attached. The tumor was first noticed three and one-half months ago and has been enlarging gradually. With the appearance of this tumor, the goiter, present seventeen years, about the size of a hen's egg located in the mid-line just above the sternum, gradually disappeared and pressure symptoms were soon noticed.

The subcutaneous tissue from the lower border of the thyroid cartilage above to the sternum below and extending about three centimeters to either side of the mid-line was so hard that it was impossible to palpate the thyroid gland. In the angle over the sternum upon deglutition the top of a spherical tumor could be palpated. No cervical lymph glands were palpable. The skin over the indurated area was not adherent and showed no evidence of inflammation. Nose and throat—Negative. There was no paralysis of the vocal cords. Heart—Pulse one hundred, regular. Heart dullness enlarged one centimeter to the left. No murmurs. Blood pressure—Systolic one hundred fifty. Diastolic eighty. Lungs—Negative. Abdomen—Negative. Pelvis—Body of uterus absent. Urinalysis—Specific gravity 1.012. Acid, no albumin, no sugar or casts. Pupils react to accommodation and to light. Neurology—Negative except that patient nervous and worried about her neck.

A diagnosis of adenoma of the thyroid gland with a probable secondary malignancy was made. The total absence of any enlarged lymph glands made a diagnosis of malignancy doubtful considering the extensive induration of the tissue overlying the thyroid gland.

An exploration was advised. March 31, 1916, under light ether anesthesia a collar incision was made and the skin reflected above to the lower border of the thyroid cartilage and below to the upper border of the sternum. The sterno-hyoid and sterno-thyroid muscles could not be recognized but appeared as a diffuse homogeneous mass of fibrous tissue extending from the thyroid cartilage to the sternum. The soft tumor mass two centimeters in diameter which was located in the region of the upper right pole of the thyroid gland proved to be a greyish putty-like softening of the muscle in this region. Separating the fibrous tissue in the mid-line in order to expose the thyroid gland it was seen that no thyroid tissue could be recognized and apparently the entire gland was a mass of fibro-cartilaginous tissue which was closely adherent to the thyroid and cricoid cartilages as well as the trachea. Dissecting down along the right side of the trachea to find the source of pressure which was so marked that the ether anesthesia had to be frequently discontinued, a circumscribed tumor two centimeters in diameter was found lying in a mass of fibrous tissue partly imbedded into the side of the trachea about one centimeter below the cricoid cartilage. Traction forward and outward upon the tumor immediately improved respiration and it was rapidly enucleated, having apparently but little attachment to the surrounding tissue. Very little bleeding occurred during the operation as all the diseased tissue seemed avascular. No other tumor could be found, and as the patient now was breathing normally it was decided the object of the operation was accomplished.

Pieces of tissue removed from the soft tumor mass in the muscle as well as in the region of the tumor adjacent to the trachea were removed for further examination. The skin was closed with a double row of subcutaneous cat gut suture.

Microscopically the tumor resembled an adenoma of the thyroid gland, and upon being cut in half showed apparently the same structure as one of these tumors which are so frequently found in the thyroid gland. The tissue removed was microscopically examined by Dr. Lorena Breed, who reported syphilis of the thyroid gland. The microscopic sections which may be seen later by those who are interested shows an irregular interstial proliferation containing many embryonic connective tissues and some giant cells. The blood vessels all show obliterating arteritis. The thyroid tissue varies in areas from a total destruction by a fibrous tissue overgrowth to apparently normal acini, on a whole it takes the adenomatous type. The only area which shows caseation is in the sections from the muscle surrounding the soft tumor mass. The local softening of the sterno-thyroid muscle noticed at operation suggested gumma, so the next day blood was removed from the median vein of the patient and sent to Drs. Walter Brem and A. H. Zeiler for a Wassermann test. A report of Wassermann four plus positive was received. Increasing doses of potassium iodide were immediately ordered

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for the patient, with the result that the induration of the tissue over the thyroid gland disappeared within three weeks. Antisyphilitic treatment was continued until the Wassermann reaction was negative three months after discontinuing the treatment. It is now two years after operation and the patient, recently seen, considers herself well.

Inquiry about the time of the syphilitic infection brought out the fact that the patient had not mentioned anything about a possible venereal history because the second husband was present when the first history was taken. In a later history the patient stated that her first husband after returning from a three months' visit to New Mexico doctored for a running sore of the left groin, and a short time after that she began to have severe headaches starting at 3 A. M., accompanied by a sore on her tongue like a piece bitten off and a rash over her body. Her hair fell out and there was some nausea and diarrhoea. These symptoms subsided in a few weeks so she did not consult a doctor and had no treatment.

Considering now the luetic history, the slow development of a painless induration involving the thyroid gland and overlying muscle, the absence of any enlarged glands, the area of caseation in the sterno thyroid muscle, the general fibrosis of the thyroid gland and adjacent tissues, the histological picture of syphilis, the four plus positive Wassermann and the immediate therapeutic relief with no recurrence after two years I believe we have sufficient evidence to prove this a case of tertiary syphilis of the thyroid gland.

A most interesting fact we must not overlook is that the patient had an adenomatous form of goiter for seventeen years previously and therefore an abnormal thyroid gland when it became infected with syphilis. It is quite possible as Mendel has suggested that syphilis apparently only affects already diseased glands and that the iodine content of normal glands prevents the localization of the syphilitic virus.

In reviewing the reported cases of syphilis of the thyroid gland as to the presence of a goiter and as to its type I find it difficult to draw definite conclusions as to the presence of a previous goiter because only in the case reported by Mendel from Thiersch's Clinic at Leipsic in 1883 is it definitely mentioned that a goiter had been present twenty-six years previously. Most authors speak of recent tumors of the thyroid that histologically prove to be gummata or clinically disappear under antisyphilitic treatment. It would seem then that tertiary syphilis of the thyroid may occur in two forms, a diffuse cirrhosis of the thyroid without tumor formation and a more frequent form with tumor formation.

I place my case in the class without tumor formation, as was the case reported by Davis, as the presence of the adenoma was merely a coincidence, although by intering with the iodine content of the gland probably the cause of the thyroid becoming infected.

References.

Lang, E.: Jaresb. d. Gesellsch, f. Natur u. Helik. in Dresden 1851-52.
Demme: Krankheiten der Schilddrüsen, Bern, 1879.
Barth and Gombault: Progres. Med., 1884, xii, 834.
Fraenkel: Deutsch. Med. Wchnschr., 1887, xiii, 1035.
Engel-Reimers: Jahrb. d. Hamburg. Statskrankenanst, 1891-92, ii, 430-436.
Köhler: Berl. klin. Wchnschr., 1892, xxix, 743.
Lockwood: St. Bartholomew's Hosp. Rep., 1895, xxi, 232.
Pospelow: Monatash. f. prakt. Dermat., 1894, xix, 125.
Clarke: Lancet, 1897, ii, 389.
Mendel: Med. Klin., 1906, ii, 833.
Thursfield: Brit. Med. Jour., 1908, i, 147.
Davis: Arch. Int. Med., 1910, v, 47.
Poncet and Leriche: Gaz. d. Hôp., 1912, 945.
Favre and Savy: Lyon Chirurgical, 1913, ix, 511.
Clark: Jour. Am. Med. Assn., 1914, lxiii, 1951.
Thompson, Lloyd: Am. Jour. Syphilis, 1917, vol. 1, No. 1, 179.

SEMINAL VESICULOTOMY IN THE TREATMENT OF GONORRHEAL RHEUMATISM.*

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With increasing knowledge as to the origin of arthritis and the recognition that practically all cases are manifestations of some form of toxemia, more and more attention is being given to the recognized sources of infection. In the year 1901 Dr. Eugene Fuller reported on the technique and the results of his operations on the seminal vesicles. Genito-urinary surgeons were slow to appreciate the value of his teachings until they had learned to recognize the types of cases most suitable for seminal vesiculotomy. This report will consider only those cases having frank Neisserian histories and which presented arthritic symptoms and other systemic manifestations dependent upon focal infections in these organs and which could not be overcome by the usual non-operative methods of treatment, with the exception of two patients who were suffering so intensely from their rheumatism during the subacute stage of their urethritis that I operated to relieve their joint pains before the urethral condition was sufficiently treated.

The lumen of the ejaculatory ducts is relatively and absolutely larger than the prostatic ducts, therefore coincident vesicular infections must be at least as frequent as infections of the prostatic ducts and prostate. When we consider our anatomy and realize that less than 4% of vesicles have straight tubes and 96% have tubes of varying lengths and capacities due to twists and diverticula, we come to know that the chances of spontaneous cure are very slight and that resolution by natural drainage through the ejaculatory ducts is mechanically impossible. When therefore the vesicles become the foci of chronic inflammation and, because of this faulty drainage, the products of infection are retained within them under pressure, it is easy to understand how infectious emboli and toxins may gain entrance into the circulation and give rise to disturbances in other quite remote and apparently unrelated structures. The relationship of small dental abscesses, pyorrhea, sinus suppuration, tonsillar infections and rheumatic inflammations is now generally acknowledged and the cause of chronic arthritis is confidently sought for in these conditions.

In 1904 Fuller recognized the relationship of focal infection in the seminal vesicles to gonorrheal arthritis and proved that surgical drainage of such foci resulted in a cure of arthritis. His conclusions

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